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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.           | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------------|------------------|
| 10/797,031   | 03/11/2004  | Geert Braekevelt     | 016782-0303                   | 4638             |
| 22428  | 7590        | 11/02/2006           |                               |                  |
| FOLEY AND LARDNER LLP<br>SUITE 500<br>3000 K STREET NW<br>WASHINGTON, DC 20007 |             |                      | EXAMINER<br>SALVATORE, LYNDIA |                  |
|  |             |                      | ART UNIT                      | PAPER NUMBER     |
|  |             |                      | 1771                          |                  |

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/797,031             | BRAEKEVELT, GEERT   |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Lynda M. Salvatore     | 1771                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 August 2006.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 and 26-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 26-30, 32-36, 38-43, 45-49 is/are rejected.
- 7) ☒ Claim(s) 31, 37, 44 and 50 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION*****Response to Arguments***

1. Applicant's remarks have been fully considered and entered. Claims 15-25 are canceled. Applicant's cancellation of claims 15-25 renders moot the double patenting rejection set forth in section 1 of the last Office Action dated 5/03/06. Applicant's cancellation of claims 15-25 renders moot the rejection of claims 15-25 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Pappas et al., US 5,071,699 as set forth in section 3 of last Office Action dated 5/03/06. As such, these rejections are hereby withdrawn. Applicant's remarks regarding the rejection of claims 26-30, 32-36, 38-43 and 45-49 rejected under 35 U.S.C. 103(a) as being unpatentable over Pappas et al., US 5,071,699 are found persuasive. Specifically, the prior art of Pappas et al., fails to teach the claimed spacing of polymer tapes and metal elements as set forth in claim 26 as well as the claimed number of metal elements present in one warp and a weft direction relative to the number of polymer elements present in said one of a warp and weft direction as set forth in claim 39. As such, these rejections are hereby withdrawn. However, upon further consideration, the following new ground of rejection is set forth herein below.

***Double Patenting***

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re*

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*Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-14 stands rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-14 of U.S. Patent No. 6,787,491. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant subject matter sought is rendered obvious by the disclosed and claimed subject matter of US 6,797,491. Applicant argues that the claims of US '491 do not recite the diameter of the metal elements as set forth in instant claim 1 and it would not have been obvious to one of ordinary skill to modify the woven fabric of US '491 to provide the woven composite of instant claim 1. This argument is not found persuasive. The Examiner asserts that since US '491 discloses the diameter of the metal elements ranging from .04mm to 1.0 mm (column 5, 30-37), that it would be obvious to one of ordinary skill to modify the fabric claimed in US '491 to provide the woven fabric of instant claim 1.

***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-14, 26-30, 32-36, 38-43 and 45-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pappas et al., US 5,071,699 in view of Maekawa, US 3,986, 530.

The patent issued to Pappas et al., teaches an anti-static woven fabric comprising polypropylene flat yarns having a thickness ranging from .5 to 2 mils and a width ranging from 50 to 250 mils (Abstract and Column 3, 10-15). With regard to the claimed thickness and width ranges set forth in claims 3 and 4, 2 mils is equivalent to 50 microns and 50 mils is equivalent to 1.27mm, thus the ranges taught by Pappas et al., meets these limitations. With regard to the rectangular cross section recited in claim 2, a flat yarn or tape would inherently meet the limitation of an essentially rectangular cross-section. The polypropylene flat yarns are interwoven such that they cross over in the warp and weft directions (Column 3, 30-33). In addition to the polypropylene flat yarns, the woven fabric comprises a plurality of conductive fibers which may be interwoven with the warp flat yarns, with the weft flat yarns or in both the warp and weft directions (Column 3, 40-47 and abstract). The Examiner considers staple fibers sufficient to meet the limitation of "metal strands". Alternatively, Pappas et al., teaches that the conductive yarns may also be superimposed over the woven polypropylene fabric and coated with a thermoplastic material (Column 3, 65-69). Additionally, the coating may be applied to one or both surfaces of the woven fabric (Column 4, 47-50). Suitable conductive fibers include stainless steel and copper (Column 4, 5-10).

Pappas et al., fails to teach the claimed diameter of the filaments as set forth in claim 1 and the claimed spacing of the metal elements as set forth in claim 26, however, the patent issued to Maekawa teaches a cloth having anti-static properties (title and abstract). Maekawa teaches conductive metal filaments having a diameter ranging from 50-8 microns (column 3, 29-35). Maekawa teaches that metal filaments having a diameter above 50 microns results in a decrease

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of anti-static properties and metal filaments having a diameter lower than 8 microns result in manufacturing difficulties (column 3, 30-35).

Therefore, motivated by the desire to provide a woven cloth good anti-static properties it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the anti-static woven fabric of Pappas et al., with the metal filaments having the diameters disclosed by Maekawa.

Pappas et al., fails to teach the claimed spacing of the metal filaments, however, the patent issued to Maekawa teach spacing the conductive filaments in amount of .1 to 1.0 per cm width of the cloth (column 3, 40-column 4, 15). Maekawa teach that if the incorporation density of the conductive metal filaments is outside this range, the anti-static properties of the cloth will not be adequate enough to eliminate sparks and shocks (column 4, 10-26).

Therefore, motivated by the desire to provide a anti-static cloth capable of eliminating sparks and shocks, it would have been obvious to one having ordinary skill in the art to form the anti-static woven fabric of Pappas et al., with the density range of conductive metal filaments taught by Maekawa.

With regard to claim 39, it is the position of the Examiner that the limitation of the claimed number of metal elements present in one warp and a weft direction relative to the number of polymer elements present in said one of a warp and weft direction would be met once the anti-static woven cloth provided by the combination of Pappas et al., in view of Maekawa is provided. Support said argument is based on the teaching of Maekawa to space the conductive metal filaments with a density ranging from .1-1.0 thread per cm width of the cloth. In addition, is also the position of the Examiner that Pappas et al., taken alone meet this limitation since

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alternatively, the conductive yarns may also be superimposed over the woven polypropylene fabric and coated with a thermoplastic material (Pappas et al., Column 3, 65-69). Though not exemplified by Pappas et al, such an arrangement would inherently meets the limitations set forth in claim 39.

With regard to the claimed inweaving factor of 1, although the combination of Pappas et al., in view of Maekawa does not explicitly teach the claimed inweaving factor, it is the position of the Examiner that said inweaving factor is inherent to the combination of Pappas et al., in view of Maekawa. Support for said presumption is based on the fact that since the woven fabric of Pappas et al., in view of Maekawa is an anti-static fabric it would be obvious that the metal elements would not be bent. For example, bent metal elements would cause undesirable points of discharge. Having such points would contradict the teachings of Pappas et al., in view of Maekawa which teach evenly distributing the static electrical charge build up on the surface of the fabric. Pappas et al., also teach a general weave using conventional equipment evidencing that the metal elements must not be crimped or bent as they are interwoven in the fabric. Also, if the metal elements did not inherently have the claimed inweaving factor of 1, special manufacturing equipment would need to be employed to produce a woven fabric wherein the metal elements are crimped or bent as they are interwoven such that they would extend beyond the length of the fabric. Pappas et al., discloses no such equipment or technique. Additionally, figure 2 of Pappas et al., and figure 2 of Maekawa illustrates the metal elements interwoven in a non-bent flat fashion.

*Allowable Subject Matter*

5. Claims 31,37,44 and 50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Specifically, the prior art fails to teach arranging all of the polymer tapes in the weft direction and currently no motivation exists to combine references to form an obvious type rejection. With regard to claims 37 and 50, Pappas et al., fails to teach connecting the formed woven fabric comprising flat polymer tapes and conductive metal fibers to a hose to form a reinforced hose or tube. Presently, there is no motivation found in the prior art to suggest that the conductive fabric can be joined to a hose to form a reinforced hose or tube.

*Conclusion*

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M. Salvatore whose telephone number is 571-272-1482. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

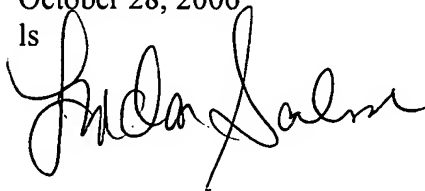


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

October 28, 2006

ls

A handwritten signature in black ink, appearing to read "Linda Salmer", written over the "ls" text.